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EXAMINER	
LEUNG, JENNIFER A	

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No.	Applicant(s)	
	09/707,105	ROLFE ET AL.	
	Examiner	Art Unit	
	Jennifer A. Leung	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) *1-4,6-8 and 14-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5,9-13 and 17-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-38* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 09/30/02 11/03/03
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II, claims 5, 9-13 and 17-38, on November 3, 2003 is acknowledged. Claims 1-4, 6-8 and 14-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Drawings and Specification

2. The drawings and specification have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9, 10 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Blackmer (US 3,174,833).

Regarding claim 9, Blackmer (FIG. 1; column 2, line 23 to column 3, line 30) discloses a hydrogen generating apparatus comprising:

a first housing (comprising upper portion of container **4** and separator **7**) defining a first chamber (compartment **5**) and a second housing (comprising lower portion of container **4** and separator **7**) defining a second chamber (compartment **6**);

a first connector disposed on the first housing (i.e., plug portion **53** of coupling **21**, wherein,

"solution is permitted to flow... through the disconnect coupling **21** and along pipe **22** which may... remain completely outside the canister and enter directly through an opening in the upper compartment," column 2, lines 60-65; column 3, line 75 to column 4, line 39; FIG. 2) and a second connector disposed on the second housing (i.e., plug portion **53** of coupling **14**; FIG. 2);

a hydrogen-containing material (metal hydride or borohydride **8**) disposed in the first chamber **5** and a reactant (aqueous solution **9**) disposed in the second chamber **6**, adapted to react with the hydrogen-containing material **8** to cause release of hydrogen;

a discharge conduit (pipe **24**) extending from the first chamber **5** for release of hydrogen;

a hub member (demand regulator **31**) having therein a transfer conduit (comprising pipes **13**, **22**) for communication between the first **5** and second **6** chambers, and a check valve (i.e., valve **16**, opening and closing orifice **17** by way of member **18**; FIG. 3) in the transfer conduit **13/22**, said hub member **31** having first and second connectors thereon (i.e., receptacle portion **40** of the disconnect couplings **14**, **21**; FIG. 2; column 3, lines 48-74);

wherein the first housing first connector **53/21** is releaseably attachable to the hub member first connector **40/21**, and the second housing second connector **53/14** is releaseably attachable to the hub member second connector **40/14**, whereby the first and second housings are connectable to and disconnectable from hub member **31** (column 3, lines 31-47).

Regarding claim 10, Blackmer further disclose an on/off actuator (i.e., comprising bellows **19**, bias spring **20**, pivot arm **29**; column 2, line 72 to column 3, line 30; FIG. 1, 3) mounted on the hub member **31** and operative to open and close the check valve **16**.

Regarding claim 18, Blackmer discloses an apparatus comprising:

a first chamber (compartment **5**) disposed in a first housing (comprising upper portion of

container **4** and separator **7**) and a second chamber (compartment **6**) disposed in a second housing (comprising lower portion of container **4** and separator **7**);

a hydrogen-containing material (metal hydride or borohydride **8**) disposed in the first chamber **5** and a reactant (aqueous solution **9**) disposed in the second chamber **6**, adapted to react with the hydrogen-containing material **8** to cause release of hydrogen;

a discharge conduit (pipe **24**) extending from the first chamber **5** for release of hydrogen;

a transfer conduit (comprising pipes **13** and **22**) interconnecting the first and second chamber for flowing the reactant **9** from the second chamber **6** to the first chamber **5**;

a check valve (i.e., valve **16**, opening and closing orifice **17** by way of member **18**; FIG. 3) mounted on the transfer conduit **13/22** and adapted to open upon decrease in pressure in the first chamber **5** from a selected pressure (i.e., "the desired value"), and adapted to close upon the pressure in the first chamber **5** rising to the selected pressure (column 2, line 72 to column 3, line 21); and

a pressurizer comprising a gas under pressure (i.e., nitrogen or inert gas under pressure, filling space **10**; column 2, lines 39-48) disposed in the second housing for acting upon the reactant **9** in the second chamber **6** to maintain the reactant **9** at the selected pressure;

wherein upon opening of the check valve **16**, the reactant **9** in the second chamber **6** is urged by the pressurizer to flow through the transfer conduit **13/22** into the first chamber **5** to react with the hydrogen containing material **8** to release hydrogen until the selected pressure in the first chamber **5** is restored, thereby to close the check valve **16** and to stop the flow of reactant material **9** into the first chamber **5**. Although not illustrated, the second housing would *inherently* comprise a means for regulating the gas flow, such as a gas charging valve, as evidenced by the disclosed ability of the apparatus to control a desired amount of gas or pressure

(i.e., such as a pressure between 10 to 20 psi) for lifting the aqueous solution **9** from the second compartment **6** into the first compartment **5** (column 2, lines 39-48).

Instant claims 9, 10 and 18 structurally read on the apparatus of Blackmer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 5, 11, 12 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackmer (US 3,174,833) in view of Hubele et al. (US 4,643,166).

Regarding claims 5 and 20, Blackmer (FIG. 1; column 2, line 23 to column 3, line 30) discloses a hydrogen generating apparatus comprising:

a first chamber (compartment **5**) and a second chamber (compartment **6**);

a hydrogen-containing material (metal hydride or borohydride **8**) disposed in the first chamber **5** and a reactant (aqueous solution **9**) disposed in the second chamber **6**, adapted to react with the hydrogen-containing material **8** to cause release of hydrogen;

a discharge conduit (pipe **24**) extending from the first chamber **5** for release of hydrogen;

a transfer conduit (comprising pipes **13** and **22**) interconnecting the first and second chambers for flowing the reactant **9** from the second chamber **6** to the first chamber **5**, wherein the end of conduit **22** is embedded in the hydrogen-containing material **8** in order to fully distribute the aqueous solution **9** to the material **8** (see FIG. 1);

a check valve (valve **16**, opening and closing orifice **17** by way of member **18**; FIG. 3) mounted to the transfer conduit **13/22** and adapted to open upon decrease in pressure in the first chamber **5** from a selected pressure (i.e., "the desired value"), and adapted to close upon the pressure in the first chamber **5** rising to the selected pressure (column 2, line 72 to column 3, line 21); and

a pressurizer (i.e., nitrogen or inert gas under pressure, filling space **10**; column 2, lines 39-48) acting upon the reactant **9** in the second chamber **6** to maintain the reactant **9** at the selected pressure;

wherein upon opening of valve **16**, reactant **9** in the second chamber **6** is urged by the pressurizer to flow through the transfer conduit **13/22** into the first chamber **5** to react with the hydrogen containing material **8** to release hydrogen until the selected pressure in the first chamber **5** is restored, thereby to close valve **16** and to stop the flow of reactant **9** into the first chamber **5**.

Although Blackmer is silent as to the specific metal hydride or borohydride to be selected for the hydrogen-containing material **8**, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select an appropriate metal hydride or borohydride (i.e., such as those instantly recited in claim 20) for the hydrogen-containing material **8** in the apparatus of Blackmer, since the use of one of the instantly recited metal hydrides and borohydrides for the generation of hydrogen gas upon reaction with aqueous media is well known in the art, as evidenced by Hubele et al. (i.e., lithium hydride; column 7, line 27).

Blackmer further discloses, "metal hydrides or borohydrides... may be purchased commercially in suitable form... That is, in powdered or mesh or foil form and thereby provide an *extensive surface with which the aqueous solution may react,*" (column 2, lines 34-39; emphasis added). However, Blackmer is silent as to introducing the aqueous solution **9** to the metal hydride or borohydride **8** according to the structure of claim 5, wherein the reactant distribution structure (i.e., end of conduit **22**) would comprise a sparging tube with a plurality holes, and the hydrogen-containing material would comprise of a disc having a central orifice for communicating with the sparging tube. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select an appropriate configuration for the reactant distributor and the hydrogen-containing material in the apparatus of Blackmer, for achieving a structure that provides an extensive surface with which the aqueous solution may react, since the recited configuration is known in the art, as evidenced by Hubele et al., and the substitution of known equivalent structures involves only ordinary skill in the art *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Hubele (column 4, line 32 - column 5, line 2; FIG. 1) teaches a hydrogen-containing material (fuel **38** containing lithium hydride) comprising at least one disc **38** (see Figure), each disc **38** having a central orifice therethrough for embedding a reactant distribution structure comprising a sparging tube (i.e., manifold tube **26** and water distribution tubes **28**), the sparging tube being provided with a plurality of holes (i.e., perforations, see Figure) such that the reactant admitted from a common duct (i.e., water inlet **14**) to the central orifice flows through the sparging tube **26/28** and the sparging tube holes to the hydrogen-containing material **38**. Such configuration inherently allows the reactant to be brought into well-distributed, full contact with the hydrogen-containing material.

Regarding claims 11, 12, 21 and 22, the same comments with respect to Blackmer et al. and Hubele et al. apply (see comments made in claims 5, 9 and 20 above).

5. Claims 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackmer (US 3,174,833) in view of Hubele et al. (US 4,643,166), as applied to claims 11 and 12 above, and further in view of Kassel (US 2,626,204).

The collective teachings of Blackmer and Hubele are silent as to the tube being a "hollow diskette" or "coiled". In any event, it would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to select an appropriate shape or configuration for the tube in the apparatus of Blackmer, on the basis of suitability for the intended use, since such distribution structures are known in the art, as evidenced by Kassel. Kassel (column 2, lines 19-54; FIG. 2, 3) teaches a distribution structure comprising a, "Diversion at spaced apart points... accomplished by the use of *a disk and doughnut construction*," or a continuous diversion by, "attach[ing] *a spiral band* to the inner surface of the tube," substantially comprising a hollow diskette or coiled tube construction, respectively.

6. Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blackmer (US 3,174,833).

Blackmer is silent as to threaded connectors between the hub member and first housing and between the hub member and second housing. In any event, it would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to select threaded connectors in the apparatus of Blackmer, on the basis of suitability for the intended use, since the use of threaded interconnections for detachable couplings is well known in the art, and substitution of known equivalent structures involves only ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ

618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

7. Claims 23-28 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackmer (US 3,174,833) in view of Scott (US 3,456,847) and Sakura (JP 56-104701).

Regarding claims 23, 26 and 27, Blackmer (FIG. 1; column 2, line 23 to column 3, line 30) discloses a hydrogen generating apparatus comprising:

a first chamber (compartment **5**) and a second chamber (compartment **6**);

a hydrogen-containing material (metal hydride or borohydride **8**) disposed in the first chamber **5** and a reactant (an aqueous solution **9**, inherently comprising water) disposed in the second chamber **6**, adapted to react with the hydrogen-containing material **8** to cause release of hydrogen;

a discharge conduit (pipe **24**) extending from the first chamber **5** for release of hydrogen;

a transfer conduit (comprising pipes **13** and **22**) interconnecting the first and second chambers for flowing the reactant **9** from the second chamber **6** to the first chamber **5**, wherein the end of conduit **22** is embedded in the hydrogen-containing material **8** in order to fully distribute the aqueous solution **9** to the material **8** (see FIG. 1);

a check valve (valve **16**, opening and closing orifice **17** by way of conical member **18**; FIG. 3) mounted to the transfer conduit **13/22** and adapted to open upon decrease in pressure in the first chamber **5** from a selected pressure (i.e., "the desired value"), and adapted to close upon the pressure in the first chamber **5** rising to the selected pressure (column 2, line 72 to column 3, line 21); and

a pressurizer (i.e., nitrogen or inert gas under pressure, filling space **10**, column 2, lines 39-48) acting upon the reactant **9** in the second chamber **6** to maintain the reactant **9** at the selected pressure;

wherein upon opening of the check valve **16**, the reactant **9** in the second chamber **6** is urged by the pressurizer to flow through the transfer conduit **13/22** into the first chamber **5** to react with the hydrogen containing material **8** to release hydrogen until the selected pressure in the first chamber **5** is restored, thereby to close the check valve **16** and to stop the flow of reactant material **9** into the first chamber **5**.

Blackmer et al. is silent as to the reactant **9** being disposed in a bladder within the second chamber **6**, and is further silent as to the pressurizer **10** comprising a spring, such that upon opening the check valve **16**, the reactant **9** within the bladder is urged by the spring to flow through the transfer conduit **13/22** into the first chamber **5**. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a bladder for storing the reactant **9** within the second chamber **5** and to substitute a spring for the pressurizer in the apparatus of Blackmer et al., since the use of pressurized, liquid distribution means comprising flexible walled containers (bladders) and a spring for actuating the liquid distribution is well known in the art, as evidenced by Scott, and furthermore, the substitution of one known liquid distribution means for another would have involved ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

As shown in FIG. 1 and 2, Scott teaches a water dispensing apparatus comprising a chamber defined by a housing (casing **36**) and having therein a thin flexible wall, sealed, collapsible bag **34** containing a supply of water (i.e., essentially a "bladder"; column 2, lines 55-61). The apparatus further comprises a compression spring **62**, wherein upon bearing force against the bag **34**, liquid is dispensed via tube **46**. Furthermore, such devices have been conventionally used in the field of hydrogen gas generating apparatus, as evidenced by Suzuki.

Suzuki (see FIG. 3, 4) teaches a hydrogen gas generating apparatus comprising a first chamber **1** in which a hydrogen generating material is disposed (i.e., Mg placed on mesh **7**) and a second chamber (pressurized chamber or water tank **2**) in which the water reactant is disposed within a bladder-type container, as illustrated by dashed lines. In operation, the reactant is fed from chamber **2** to chamber **1** via the transfer conduit/valve **10**, and hydrogen gas generated within chamber **1** is exhausted via the discharge conduit **5**. Therefore, one of ordinary skill in the art would have been properly motivated to provide/substitute the bladder and spring configuration as taught by Scott above to/for the second chamber and pressurizer of Blackmer.

Regarding claims 24 and 25, Blackmer (FIG. 1; column 2, lines 23-32) discloses the first chamber **5** and second chamber **6** are disposed in a housing (i.e., comprising container **4**, separated by wall **7**), the second chamber **6** being adjacent to the first chamber **5**.

Regarding claim 28, Blackmer discloses the hydrogen-containing material **8** comprises, "metal hydrides or borohydrides... purchased commercially in suitable form... That is, in powdered or mesh or *foil form* and thereby to provide an extensive surface with which the aqueous solution may react," (column 2, lines 33-39; emphasis added). Although Blackmer is silent as to specifically an aluminum foil, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select an appropriate material (i.e., such as aluminum) for the foil form in the apparatus of Blackmer, on the basis of suitability for the intended use of providing an extensive surface with which the aqueous solution may react, because the use of such materials for metal hydride substrates is well known in the art.

Regarding claim 37, Blackmer (FIG. 1; column 2, lines 23-32) discloses a first housing (i.e., upper portion of container **4** and separator **7**) and a second housing (i.e., lower portion of container **4** and separator **7**) interconnected to each other, the first chamber **5** being disposed in

the first housing and the second chamber **6** being disposed in the second housing.

8. Claims 29-34 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackmer (US 3,174,833) in view of in view of Scott (US 3,456,847) and Sakura (JP 56-104701), as applied to claims 23, 26 and 28 above, and further in view of Goodwin et al. (US 4,950,460).

Blackmer is silent as to the hydrogen-containing material **8** comprising a polymer-bonded hydride composite, a polymer-bonded metal hydride and aluminum in powder form, a lithium hydride slurry, or a lithium hydride slurry in oil. Goodwin teaches a variety of hydrogen-containing materials for generating hydrogen gas, wherein the materials comprise, "substantially pure *lithium hydride* or *lithium aluminum hydride granules* admixed with a filler material such as wax, for example paraffin wax, water soluble salts, for example sodium chloride, greases, *oils and soft rubbers*, for example butyl rubber or mixtures thereof," (column 2, lines 28-35). It would have been obvious for one of ordinary skill in the art at the time the invention was made to select one of the hydrogen-containing materials as taught by Goodwin for the hydrogen-containing material **8** in the modified apparatus of Blackmer because the addition of inhibitors, such as oils or polymeric materials, to conventionally known metal hydrides (i.e., hydrides of lithium, sodium, potassium, aluminum, calcium and magnesium, and also mixed hydrides; column 2, lines 3-8) determines the rate at which water comes into contact with the generator and/or the rate of reaction once it does come into contact, thereby enabling additional control over the reaction by causing a slower rate of gas generation (column 2, lines 19-45).

9. Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackmer (US 3,174,833) in view of in view of Scott (US 3,456,847) and Sakura (JP 56-104701), as applied to claims 23 and 26 above, and further in view of Geres (US 3,787,186).

Blackmer is silent as to the hydrogen containing material **8** comprising a coiled ribbon of glass cloth and metal hydride. Geres teaches a hydrogen containing material (i.e., calcium hydride; Figure) being disposed within a cylindrical cartridge comprising a liner of fiberglass cloth, substantially defining a coiled ribbon of glass cloth (column 2, lines 3-12). It would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to select a coiled ribbon of glass cloth and metal hydride for the hydrogen containing material in the apparatus of Blackmer, for the purpose of providing a conventionally known, suitable extensive surface with which the aqueous solution may react with the metal hydride, because the substitution of known equivalent structures involves only ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jennifer A. Leung
January 14, 2004

Hien Tran

HIEN TRAN
PRIMARY EXAMINER